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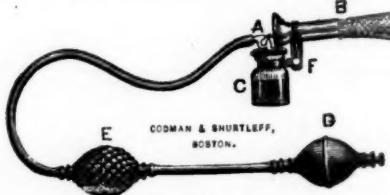
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THE  
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Educational, Scientific & Practical Interests  
OF

## THE MEDICAL PROFESSION.

EDITED BY  
N. S. DAVIS, M.D., and F. H. DAVIS, M.D.

PROSPECTUS  
FOR 1872.

With the commencement of Volume XIII, January, 1872, THE EXAMINER will be issued in a new and enlarged form, semi-monthly, instead of monthly, as heretofore.

## ITS CONTENTS

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**Original Communications.****THE PROPER CLIMATE FOR CANCEROUS AND CONSUMPTIVE CASES.**

BY EDWARD ANDREWS,

*Prof. of Surgery in Chicago Med. College.*

Some years ago, I called the attention of the profession for the first time to the fact, that there is a distinct climatic cause of cancer, and that it prevails most in precisely the same regions with consumption. I based this conclusion on calculations from the figures in the volumes of Mortality Statistics of the U. S. Census of 1860.

Having recently received advance sheets of the forthcoming Census Report of 1870 I have repeated this investigation with full confirmation of the same discovery. In brief, the law of latitude and of proximity to the sea, long known as affecting the prevalence of consumption, and first clearly enunciated, I believe, by the Surgeon General of the U. S. Army, applies in full force to cancer, as the subjoined figures will show. The law may be stated as follows:

1. Consumption and Cancer prevail most near the sea, and diminish as you recede from it.

2. At equal distance from the sea they prevail most at the north and diminish as you go south.

Thus if you begin at Massachusetts and go westward, the proportion of deaths from consumption to deaths from all causes diminishes regularly as you recede from the Atlantic. Here are the figures:

*Deaths from Consumption.*

Massachusetts,	- - - - -	25 per cent.
New York,	- - - - -	20 " "
Ohio,	- - - - -	16 " "
Indiana,	- - - - -	14 " "
Illinois,	- - - - -	11 " "
Missouri,	- - - - -	9 " "
Kansas,	- - - - -	8 " "
Colorado,	- - - - -	8 " "
Utah,	- - - - -	6 " "

Then if you go down to California it increases to 14 per cent in consequence of the proximity of the Pacific Ocean.

The same decrease is observed if you go from north to south, as follows:

Minnesota,	- - - - -	14 per cent.
Iowa,	- - - - -	12 " "
Missouri,	- - - - -	9 " "
Arkansas,	- - - - -	5 " "

Then if you go on to Louisiana it increases to 8 per cent. in consequence of the proximity of the Gulf of Mexico, aided perhaps by the marshes of the delta of the Mississippi.

It follows that the best resort for a patient threatened with cancer or consumption, is one which is at the same time as far from the sea, and as far South as possible. Such a place is New Mexico, where the deaths from consumption are only 3 per cent., or Arkansas where they are 5 per cent. Probably the central table lands of Old Mexico will be found still better when the progress of civilization shall afford safety there to travelers. Entirely in accordance with this rule, though contrary to the popular notion, we find that Minnesota is a worse place than Illinois, having 14 per cent. of deaths from consumption while our own State has only 11 per cent. The best places in the United States are

New Mexico,	- - - - -	3 per cent.
Arkansas,	- - - - -	5 " "
Texas,	- - - - -	5 " "
Georgia,	- - - - -	5 " "
South Carolina,	- - - - -	5 " "
Florida	- - - - -	6 " "
Alabama,	- - - - -	6 " "
Mississippi,	- - - - -	6 " "
Utah,	- - - - -	6 " "

A marked feature of the new census is that consumption is considerably increased as compared with 1860, in nearly all the southern states and territories, while it is diminished or stationary in most of the northern states. This indicates probably an increased influx of invalids from the north to the south in search of health. In future it is to be hoped that the census will distinguish between cases native to the region, and those immigrating in pursuit of health.

By consulting the following table, the physician can see at a glance the best resorts for patients consulting him for cancer and consumption.

RATIO OF DEATHS FROM CANCER AND CONSUMPTION TO DEATHS FROM ALL CAUSES  
IN THE VARIOUS UNITED STATES AND TERRITORIES, FOR THE  
YEARS 1860 AND 1870.

STATES AND TERRITORIES.	1860.		1870.		Average of the two Censuses.		
	Cancer.	Consumption.	Cancer.	Consumption.	Cancer.	Consumption	Per Cent. of Consumption
Alabama, -----	1 death to 174	1 death to 20	1 death to 124	1 death to 14	1 to 149	1 to 17	6 pr. ct.
Arkansas, -----	1 " 277	1 " 27	1 " 204	1 " 14	1 to 240	1 to 20	5 "
California, -----	1 " 180	1 " 7	1 " 104	1 " 7	1 to 142	1 to 7	14 "
Colorado, -----			1 " 125	1 " 12	1 to 125	1 to 12	8 "
Connecticut, -----	1 " 80	1 " 5	1 " 43	1 " 6	1 to 61	1 to 5	20 "
Dakota, -----			1 " 101	1 " 8	1 to 101	1 to 8	12 "
Delaware, -----	1 " 108	1 " 6	1 " 96	1 " 5	1 to 102	1 to 5	20 "
Dist. of Columbia, -----	1 " 116	1 " 5	1 " 168	1 " 5	1 to 142	1 to 5	20 "
Florida, -----	1 " 148	1 " 16	1 " 141	1 " 17	1 to 144	1 to 16	6 "
Georgia, -----	1 " 158	1 " 26	1 " 104	1 " 15	1 to 131	1 to 20	5 "
Illinois, -----	1 " 157	1 " 9	1 " 118	1 " 9	1 to 137	1 to 9	11 "
Indiana, -----	1 " 176	1 " 9	1 " 105	1 " 6	1 to 140	1 to 7	14 "
Iowa, -----	1 " 129	1 " 9	1 " 110	1 " 7	1 to 119	1 to 8	13 "
Kansas, -----	1 " 174	1 " 13	1 " 207	1 " 11	1 to 190	1 to 12	8 "
Kentucky, -----	1 " 178	1 " 9	1 " 106	1 " 6	1 to 142	1 to 7	14 "
Louisiana, -----	1 " 228	1 " 13	1 " 97	1 " 10	1 to 162	1 to 12	8 "
Maine, -----	1 " 68	1 " 4	1 " 42	1 " 4	1 to 55	1 to 4	25 "
Maryland, -----	1 " 114	1 " 6	1 " 77	1 " 6	1 to 95	1 to 6	16 "
Massachusetts, -----	1 " 72	1 " 4	1 " 49	1 " 5	1 to 60	1 to 4	25 "
Michigan, -----	1 " 118	1 " 6	1 " 77	1 " 6	1 to 97	1 to 6	16 "
Minnesota, -----	1 " 144	1 " 6	1 " 101	1 " 8	1 to 122	1 to 7	14 "
Mississippi, -----	1 " 200	1 " 22	1 " 148	1 " 13	1 to 174	1 to 17	6 "
Missouri, -----	1 " 220	1 " 13	1 " 161	1 " 10	1 to 190	1 to 11	9 "
Montana, -----				1 " 11	1 to 183	1 to 11	9 "
Nebraska, -----	1 " 117	1 " 12	1 " 250	1 " 11	1 to 183	1 to 11	9 "
New Hampshire, -----	1 " 43	1 " 4	1 " 36	1 " 5	1 to 39	1 to 4	25 "
New Jersey, -----	1 " 100	1 " 5	1 " 75	1 " 6	1 to 87	1 to 5	20 "
New Mexico, -----	1 " 326	1 " 38	1 " 69	1 " 26	1 to 197	1 to 32	3 "
New York, -----	1 " 86	1 " 5	1 " 59	1 " 6	1 to 72	1 to 5	20 "
North Carolina, -----	1 " 116	1 " 16	1 " 92	1 " 9	1 to 104	1 to 12	8 "
Ohio, -----	1 " 104	1 " 7	1 " 70	1 " 6	1 to 87	1 to 6	16 "
Oregon, -----	1 " 150	1 " 10	1 " 6	1 " 6	1 to 150	1 to 8	12 "
Pennsylvania, -----	1 " 95	1 " 6	1 " 69	1 " 7	1 to 82	1 to 6	16 "
Rhode Island, -----	1 " 55	1 " 4	1 " 47	1 " 5	1 to 51	1 to 4	25 "
South Carolina, -----	1 " 152	1 " 25	1 " 121	1 " 11	1 to 136	1 to 18	5 "
Tennessee, -----	1 " 185	1 " 10	1 " 97	1 " 6	1 to 141	1 to 8	12 "
Texas, -----	1 " 213	1 " 22	1 " 174	1 " 16	1 to 193	1 to 18	5 "
Utah, -----		1 " 18	1 " 14		1 to 16	6 "	
Vermont, -----	1 " 40	1 " 4	1 " 36	1 " 5	1 to 38	1 to 4	25 "
Virginia, -----	1 " 133	1 " 10	1 " 87	1 " 7	1 to 110	1 to 8	12 "
Washington Territory, -----		1 " 6	1 " 45	1 " 6	1 to 45	1 to 6	16 "
West Virginia -----			1 " 100	1 " 6	1 to 100	1 to 6	16 "
Wisconsin, -----	1 " 129	1 " 7	1 " 60	1 " 8	1 to 94	1 to 7	14 "

## CARIES OF VERTEBRAE.

BY DANIEL LICHTY, M.D., OF ROCHELLE, ILL.

This case is presented because of its rarity as regards age and its peculiar and varied symptoms.

Mr. Pott, in his diseases of the spine, says he never saw caries occur at an age beyond forty, and Mr. Baynton never met with more than three instances which approached that period of life, while Mr. Brodie, in his Diseases of Joints, describes one case in which the patient was forty-five years old; and Sir Astley Cooper thinks he had a patient near that age.

Mr. O. F. aged 40, average size and erect figure, marked bilious temperament, without any malignant hereditary predisposition, though all his family bear this strongly marked bilious type; occupation, farmer, applied at my office Feb. 16, 1872, for advice, when he presented the following history, symptoms and signs: Has for two years been troubled with slight indigestion; during two years past had what farmers style a "crick in the back," and thirteen months before consulting, was severely hurt in right side by the horn of a cow, but no physician being consulted, the extent and character of the injury

was never known, yet he said he never fully recovered from it; work in the stooping posture, violent exercise, riding in a farm wagon, each had to be occasionally abandoned from the pain which they created, while an interval of rest gave him relief; still he continued managing and working his farm until February last. He presented some slight nervous trepidation, rose from his chair cautiously; could not bear any weight on his hand when extended at right angles to his body; rheumatic pains in loins, constant but not excited on pressure; the perfect free mobility of back somewhat impaired; pressure in right hypochondrium referred to right scapula; a sense of fullness in epigastrum with anorexia, while percussion and palpation showed positive enlargement of the liver; this organ protruding from beneath the ribs to the extent of nearly an inch, while the middle lobe could be traced to the umbilicus and to the left of the median line; skin and sclerotica both jaundiced. Diagnosed, chronic hepatitis with mal-assimilation of nerve substance and consequent nervous irritation. Alteratives—hydrg. chlor. mit. sanguinaria and pot. nit. were first employed; being unusually susceptible, slight ptyalism occurred. Iodide and bromide of potassium followed this with external irritants and absorbents, which reduced the size of the liver and appeared to establish its functions; the pain in epigastrum disappeared; skin and sclerotica became clear and of a natural appearance, and appetite returned. Tonic medicines—phosphate of iron, strychnia, etc., with nutritious food I hoped would now restore him. Valuable counsel had been called to my aid, and the foregoing diagnosis and treatment confirmed.

But here my anticipations began to falter; instead of recovering he kept on gradually growing more excitable and weaker, though contrary to what subsequent developments proved, he could until a late period of his illness walk up and down stairs; but the slightest misplacement of body would bring on a cramp or spasm which he described as feeling as though his back was bent double; by bending the third and second phalanges of his finger upon the first. Here he became

unable to walk, and was confined to his bed, with occasional rest in the sitting posture with the body thrown well forward and supported over the back of a chair. Atrophy of the spinal cord, caries of the spine and kindred maladies were suspected but none could be detected; not the slightest unnatural curvature or prominence was observable; tapping or pressure would not elicit pain, and hot cloths applied gave him more relief than anything employed locally; the electro-magnetic current passed through every part of his body without any further result than to produce a moderate degree of excitement, never any wincing at any part of the spine; sensation in lower extremities not so acute as in trunk and arms; never any spasms referred to the thighs while co-ordination of motion remained perfect in legs; venery, though without intercourse, was natural; urination under control, while the tendency to constipation was relieved by two pills improv. cath. U. S. D. taken at 9 o'clock p.m.; decubitus was always on either side, never on the back; morbid and peculiar nervous sensations emanated from the sensorium and prevailed over the upper part of the body, marked by extreme hyperesthesia so that the hem of his shirt, or a wrinkle in the sheet could not be tolerated from the pressure they induced; the touch of a finger to his sides he could not allow; application in thought, or, to him, repulsive sights, would bring on spasms. At a period six weeks before his death the attendant could not move in his chair, scarcely sigh, unless patient was soundly asleep. In this interval of four weeks two able physicians saw him with me and he was unhesitatingly pronounced hypochondriacal by both.

Bromides controlled, in a measure, his excitability, while hydrate of chloral procured for him sleep at night. His appetite remained good, and intellect equal to any one of an equal length of sickness.

Twenty-four hours before his death symptoms of acute spinal meningitis attacked him from which he died.

The friends were persuaded from the obscurity of the case to allow a post mortem, which was held the day of his death. The

lungs, liver, spleen and right kidney presented a healthy appearance, the left kidney showing signs of quite recent inflammation and engorgement; the mucous membrane of stomach inflamed at cardiac region; the white fibrous fascia binding the vertebrae was unimpaired, but pressure showed softness, and the scalpel penetrated the bodies of the vertebra and a mass of putrescence and bone spiculae, the bodies of the vertebrae, from the sacro-lumbar articulation upward, all being carious and suppurated to the seventh cervical, some of them retaining their outline by the outer lamina only, many of them being eroded to the supervening cartilage. The form of disintegration indicated that it commenced anteriorly in the bodies, but at what point could not be ascertained; no point could be detected at which pus escaped nor were there at any time symptoms of pus escaping into the cavity of body or of abscesses. I think it one of those rare cases of which Sir Astley Cooper says of carious spine without curvature and without collections of matter forming and making their way outward, but "being detained within the body, destroys the patient, the **REAL** and **IMMEDIATE cause of whose death is seldom known, or even rightly guessed at, unless the dead body be examined,**" and to that end submit it to the consideration of the profession.



#### A CASE OF POISONING WITH MORPHIA AND HYD. CHLORAL—REMARKABLE RECOVERY.

BY THEODORE GRIFFIN, M.D., OF ST. LOUIS, MO.

In the July number of the Chicago MEDICAL EXAMINER for 1871, I reported a case of opium poisoning successfully treated by the hypodermic injection of *atropine*. That case was regarded as one of unusual interest, from the fact that the patient was very nearly dead when the remedy was used, there being only about two imperfect respirations per minute, with every other evidence of rapidly approaching death. In this case no other remedy than the atropine hypodermically used was applied.

I wish here to report a case of recovery

from poisoning with morphia and hyd. chloral, which, so far as my knowledge extends, is the most remarkable on record, and which forcibly illustrates the necessity of persisting in the vigorous employment of the means of resuscitation so long as there are perceptible contractions of the heart.

On the 2d of May, 1872, I was called to see Mrs. G. of St. Louis, aged about 30 years, of medium height, and rather obese. I found her alone in her room, and in a state of partial unconsciousness, with a quiet muttering delirium. I supposed her to be under the influence of liquor, and information which I afterwards received confirmed me in this belief. Domestic trouble had doubtless led her to unusual excesses; her husband having deserted her two weeks previous to this time. She was suffering from much nervous and general physical debility, delirium and sleeplessness. Accordingly, tinct. of *nux vomica* as a nervous tonic and stimulant was prescribed; and for the insomnia hyd. chloral  $\frac{3}{4}$  1, tinct. opii  $\frac{3}{4}$  1, mix, which she took in divided doses on the night of the 2d, without its producing any sedative effect whatever. On the morning of the 3d her general symptoms were much improved, and she was told that on the succeeding night she would probably sleep without an anodyne being administered. Yet, on the morning of the 4th she sent to my office the statement that she had not slept any during the past night, and requested that I should prescribe morphine for her. Regarding the case as one of rather obstinate insomnia, resulting from *delirium ebriosum*, I prescribed as follows:

R Sulph. morph. gr. viij.  
Hyd. chloral  $\frac{3}{4}$  1.  
Aqua camph.  $\frac{3}{4}$  1.  
Syr. simplex  $\frac{3}{4}$  1. Mix.

Of this mixture she was directed to take one teaspoonful every hour until sleeping. She took the first dose at 10 a.m. on the 4th. At 12 o'clock I was called in haste to see her. I found her profoundly under the influence of the narcotic medicines, and upon examining the bottle which contained the medicine, it was found that she had taken nearly three-fourths of its contents during the two hours,

making about six grains of morphia and forty grs. hyd. chloral. The ordinary treatment in these cases was at once vigorously resorted to. At 2 o'clock she was profoundly comatose. Drs. W. Johnston and Grissom were called to my aid. To my suggestion that atropine be used hypodermically Dr. Johnson acceded. I immediately procured the following solution: Atropia gr. 1, aqua 3 1. Of this solution I presume one-half was injected near the median basilic vein by Dr. Grissom. Some of the solution was wasted, as the syringe worked imperfectly, so that it is impossible to state the exact quantity used. The injection of atropia was given at about 2 o'clock; a few moments before the use of the atropia artificial respiration was begun by alternately elevating the arms and depressing the chest.

The patient presented the following symptoms at 4 o'clock p.m.: Lying on her back on the floor, lips and face of a dark purple color; extreme capillary congestion of the surface; eyes fixed; pulse barely perceptible, beats 140 times per minute, and very feeble; no respirations appreciable; tongue falls back into the pharynx. The tongue was drawn forward and artificial respiration vigorously continued. 4 o'clock p.m.—The pupils are now widely dilated by the atropia; pulse scarcely perceptible, at times absent; sordes accumulating on the teeth; no respirations appreciable; artificial respiration continued. 5 o'clock p.m.—Pulse more easily detected; no respirations appreciable; artificial respirations continued. At about this time ten or twelve medical students arrived and assisted. 6 o'clock p.m.—Condition unchanged. 7 o'clock p.m.—Decided improvement in her circulation; her symptoms in other respects are apparently unchanged; artificial respiration continued. 8 o'clock p.m.—Pupils not so much dilated; pulse 130 and more full; color of skin and lips much improved; no respirations are yet appreciable, yet hopes are now entertained of her recovery; artificial respiration continued. 8 1/2 o'clock p.m.—Now, for the first time since 2 1/2 o'clock, a period of six hours, it is evident that she breathes; the respirations are short, jerking, and otherwise

imperfect, yet there are sixteen of them in a minute; pulse 130 and distinct; pupils well dilated; artificial respiration discontinued. From this time she gradually improved. At the suggestion of Dr. Grissom injections per rectum of strong warm coffee were given; one and a half quarts were administered in this way during an interval of four hours, with some apparent benefit.

At 3 1/2 o'clock a.m. of the 5th, she was taken from the floor and placed upon a bed; pupils still dilated. She has at short intervals periods of wandering delirium, with periods of consciousness. At 4 o'clock a.m. I left the patient in charge of four students. I visited her again at 7 a.m. and found her quite intelligent, respirations natural, pulse 100 and full, pupils somewhat dilated. Her skin is hot, and she complains much of muscular soreness, of pain in the chest, and coughs some. Of her subsequent treatment it would be uninteresting to speak. She necessarily suffered considerably from injuries received during the continuous employment of artificial respiration for a period of six hours. Nourishment and rest were the principal remedies indicated. On the morning of the 6th I had occasion to visit the country and requested Dr. Grissom to attend the patient during my absence. When I returned, after an absence of three days, I found that my services were not further desired, the case passed into the hands of Dr. Grissom.

This case doubtless illustrates, in an unparalleled degree, the efficiency of prolonged and unremitting artificial respiration in cases of poisoning by narcotic medicines, even when all signs of vitality are extinct (except, perhaps, contractions of the heart).

Death from opium poisoning begins at the brain; the heart is the last vital organ to cease its functions; it derives most of its supply of nervous influence from the sympathetic nervous system, whose plexuses (cardiac) lie in close proximity to the heart, and whose filaments permeate almost every square line of its substance. By some, the various ganglia of the organic nervous system are supposed to be centers of independent nervous force; little brains, as it were, and that they

can give and receive impressions, and sustain vitality in a measure independent of the cerebro-spinal system. If this theory be true, it accounts in a measure for the fact that when the brain and its nervous appendages, with all their dependent organs, are overwhelmed and stilled by the poisonous influence of opium, the heart continues to beat and the circulation to go on—presenting the phenomenon of a living heart in a dead body. Artificial respiration, by bringing air in contact with the pulmonary circulation, liberates the carbonic acid with which the blood quickly becomes loaded and supplies to it oxygen; which when returned to the heart, stimulates it to more vigorous contraction, supplying thus oxygenated blood to a poisoned brain. Thus the blood is oxygenized, thus the heart is stimulated and its action kept up; thus the brain and nervous centers are supplied with arterial blood, until the narcotic has expended its power and life is restored.

How far the atropine acted as an antidote in this case cannot of course be known; all we know is that its physiological effect as manifested by dilated pupils, was apparent in fifteen minutes after its injection, and continued until after her recovery from the narcotism.

Doubtless I committed an error in placing so large an amount of morphine in such hands. The dose prescribed may be regarded as unsafe; yet every medical man will admit that no one is so competent to judge of the amount of morphine required in a given case as the attending physician, circumstances so alter cases. Dr. Grissom procured the invaluable assistance of the students, and by united and constant muscular labor for a period of six hours and a half a life was saved.

### Clinical Reports.

#### CLINIC OF PROF. N. S. DAVIS—SUMMER COMPLAINTS OF CHILDREN—CASES, &c.

*Gentlemen:* In the cities and more densely populated towns located in the middle and

northern belts of the United States, the first week of continuous hot summer weather always develops more or less cases of diarrhoea and cholera-morbus in young children, and to a less degree also in adults. In this city (Chicago), the time of commencing the high summer heat is very variable, but generally manifests itself between the twenty-third of June and the middle of July. In each of the five years that I have witnessed the prevalence of epidemic cholera here, the first week of high temperature commenced during the last week of June. In 1854, we had a week of hot, sultry weather, commencing as early as the twenty-first of June. The present season, we had a succession of three very hot, oppressive days, between the twentieth and twenty-fourth of June, ending in a copious rain, with two or three cooler days. From that to the present time (July 2d) we have had continuous hot weather, with oppressive south and south-west winds, inducing a great feeling of lassitude in persons in good health.

During the last of the first three days, I was called to several cases of diarrhoea and vomiting in children, and to two cases of cholera-morbus, accompanied by muscular cramps, in adults. During the last four days the attacks of diarrhoea, cholera-infantum and cholera-morbus, have increased so rapidly, that nearly one-half of all the patients coming under my observation have been of that class; and the past week's mortality will show a large increase over the previous weeks, from the prevalence of these affections. This large increase of mortality, chiefly from the bowel-affections of children, recurs regularly every year, beginning the first week of hot summer weather and continuing through July, August, and a part of September; and these affections are as strictly endemic in the impure summer atmosphere of the cities in the temperate zone of the earth's surface, as the intermittent fever is on the Roman Campagna or on the alluvial deposits in the Mississippi Valley. The principal determining causes appear to be a high temperature acting in conjunction with an atmosphere either deficient in free electricity

and ozone, or rendered impure by the products of animal and vegetable decomposition.

These influences induce a great degree of relaxation or diminution of vital affinity, with a morbidly sensitive condition of the mucous and cutaneous surfaces of the body, which, in the more feeble organization of very young children, is sufficient to cause an exudation from the mucous membranes and its ejection by vomiting or purging, or both. If the relaxation is excessive and the exudation or effusion from the mucous surfaces rapid, causing active vomiting and purging, it takes the name of cholera-morbus or cholera-infantum; when it is slight, causing only languor, paleness, and several thin discharges from the bowels, it takes the name of diarrhoea or "summer complaint."

Case 1st.—Here is a case illustrating the last mentioned class. This baby is eight months old. You see it lying languidly in its mother's lap; the face is a little pale; the eye slightly sunken; the expression sad; its surface and extremities cool; respiration quiet, and pulse soft and weak. The mother says it has had from four to six thin, yellow discharges every twenty-four hours for the last three days. The passages are thin, copious, and preceded by a little restlessness or peevishness, and followed by languor. There is neither fever, pain, or mucus in the discharges, or anything indicating local inflammatory action. The pathological conditions are, simply, general relaxation, with undue excitability of the mucous membranes of the bowels. The ideas entertained by some, that these cases depend on some derangement of the liver; or that the discharges are the result of an effort of nature to get rid of some morbid matter, or the result of "teething," are founded on neither legitimate reasoning nor the facts involved.

The indications for the treatment of the case before you are, to allay the morbid excitability of the mucous membranes and give increased tone to the nervous and muscular structures of the body. The child's nursing should be regulated so as to prevent overloading the stomach at any one time, but the mother's milk is the best nourish-

ment that it can take, and the less of any other fluid it takes the better.

For medicine we will give it the following prescription:

R—Phloridzine	24 grains.
Aromat. spts. ammon.	3 i.
Camph. tinct. opii	3 i.
Water	3 iss.
Simple syrup	3 ss.

Mix. Shake the vial and give half a teaspoonful each morning, noon, teatime, and at bedtime.

The phloridzine, derived from the bark of the root of the apple-tree, is a mild and pleasant tonic, while the camphorated tincture of opium supplies the necessary anodyne influence. In mild cases, like the one before us, this combination has been frequently used with prompt benefit.

Case 2d.—This is a child presenting another aspect of the same general malady. Its mother says it is thirteen months old, and was suddenly attacked last evening, with vomiting and purging, every few minutes until the present time. If it nurses, the milk is ejected almost as soon as it lets go the nipple; if it drinks a spoonful of water it provokes the same heaving; and thus everything it swallows is speedily thrown up. Yet it is craving for water. The passages from the bowels occur every half-hour, perhaps, and are preceded by a little writhing and fretting, and consist of a turbid or yellowish fluid, so thin as to run readily through two or three napkins, and leave only a stain of fecal matter. The child is drowsy; the eyes sunken; the face pale and dejected; the skin, especially of the extremities, cool; pulse thready and weak; and respirations slow, with frequent sighing. Here you have a more active example of the cholera-infantum, about eighteen hours after the commencement of the attack.

It is a case presenting actual danger of fatal collapse during the active stage. If it survives this stage, and the vomiting becomes only occasional, with a continuance of intestinal discharges less frequently, the latter will become green, mixed with little masses of mucus, sometimes streaked with

blood; the abdomen will become hot, the pulse quick, the child more restless and peevish, with excessive thirst, and after emaciating to a skeleton, may die from inanition at the end of three, four or six weeks. On the other hand, prompt treatment designed to allay the extreme irritability of the whole extent of the mucous surface of the alimentary canal, and restore the proper tone of the capillary vessels, will in many cases arrest the disease and lead to a rapid recovery of the patient. We will give the little sufferer the following prescriptions:

R—Carbolic acid crystals	3 grains.
Glycerine (pure)	5 ss.
Camph. tinct. opii	5 i.
Water	5 iss.

Mix. Give 20 drops every half hour until the vomiting ceases; then extend the time to every two hours.

R—Hydrg. chlorid. mite	4 grains.
Pulv. opii	1 "
White sugar	30 "

Mix. Divide into 8 powders, and give one every 8 hours.

If the vomiting ceases, and the passages from the bowels are reduced in frequency to only two or three in the twenty-four hours, the powders are to be omitted, and ten drops of the nitrous ether added to each dose of the carbolic acid solution, to aid in securing proper action of the kidneys. In many cases, this treatment will result in a rapid and entire recovery.

In others, the vomiting ceases, or occurs only occasionally; but the intestinal discharges continue at intervals of two, three, or four hours, preceded and accompanied by symptoms of pain; the child becomes fretful, craving for drink, and rapidly emaciates. The intestinal discharges are very variable in color and quality.

In a majority of such cases the following emulsion acts very favorably:

R—Ol. terebinth	3 ii.
Ol. wintergreen	20 qts.
Tinct. opii	3 ii.
Pulv. G. Arabic	3 a a
White sugar	3 iv.
Rub together and add	
Water	5 iii.

Mix. Shake the vial and give to a child of this age, from fifteen to twenty drops every three, four, or six hours, according to the frequency of the discharges. In all cases where the child can have a good breast of milk, that alone should be its nourishment. But if artificial food must be provided, we have found nothing to answer better than a thin, well-prepared wheat-flour and milk porridge, given in small quantities. It is also of great importance to give these little children access to fresh and pure air. Their confinement in small, over-heated and badly ventilated rooms, is one of the most prolific causes of their sickness and mortality.

**HYDROCHLORATE OF NARCEINE FOR HYPODERMIC INJECTIONS.**—Dr. Petrini, in the *Bulletin de Therap.*, advocates this salt as superior to sulphate of atropine or muriate of morphia. In very small doses, five milligr. to one centigr., its calmative power is manifest. It is superior in its power to control sickness to salts of morphia. When all preparations of opium or morphia fail as hypnotics, a small dose of the salt of narceine will succeed. In the smallest doses its effects are also to slightly raise the temperature, as well as the frequency of both the pulse and respiration, but at the same time to reduce arterial tension.—*Medical World*.

**CROUT.**—MM. Mouttet and Rosiere, of Montpellier, report that they have cured croup, when tracheotomy was refused by the parents as a useless cruelty, by repeated insufflations of powdered nitrate of silver. The application was at once followed by the detachment and expulsion of false membrane, and was repeated a quarter of an hour after with a similar result. Three or four hours later another insufflation was followed by so much relief that hope was entertained, and the child from this time made a steady recover.—*Id.*

**INTUSSUSCEPTION—NOVEL AND SUCCESSFUL TREATMENT.**—Alfred W. Taliaferro, of San Rafael, reports a case of invagination of the intestines that was relieved, after all other means had failed, by an injection of a solution of carbonate of soda followed by a solution of tartaric acid. Immediately on the withdrawal of the pipe of the syringe, after the injection of the second solution, a large sponge was pressed against the anus.—*Western Lancet*.

THE  
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EDITED BY

N. S. DAVIS, M. D., AND F. H. DAVIS, M. D.

Chicago, June 15th, 1872.

EDITORIAL.

**EXPLANATION.**—During the last few months, as most of our readers know, the junior editor has been absent from home, and the amount of work left on the hands of the senior has been such that he has found it impossible to bring the issues of the *Examiner* up to their proper date. Before this paragraph reaches its readers, the junior editor is expected to be again at home and at his post. And we think reliance can be placed in the future prompt and regular issue of each number.

**OUR MEDICAL COLLEGES.**—The summer course of instruction in the Chicago Medical College, Medical Department of the N.-W. University, closed on the first of July. The course was a pleasant and profitable one, and attended by a good class of students. The college, in all of its departments, is in excellent order, with the ample hospital and dispensary in connection with it, and all are in readiness for the commencement of the next annual course of instruction.

Our friends of the Rush Medical College appear to have abandoned the plan of rebuilding on their old place in the north division of the city, and are constructing a very plain building on the County Hospital lot, on the corner of Eighteenth Street and Arnold. It contains a lecture room and dissecting room, and with the amphitheatre of the hospital, will constitute their accommodations for the coming fall and winter. There is no city in the country that affords better facilities for medical instruction than this. Our schools are well organized; our hospitals are ample, and the arrangements in every department, didactic, demonstrative, and clinical, are complete.

**MEDICAL BOOKS.**—Those wanting medical books will find a good assortment at the book-store of Messrs. Jansen, McClurg & Co., at 607 Wabash Avenue.

Society Reports.

SEVENTH ANNUAL MEETING OF THE MILITARY TRACT MEDICAL ASSOCIATION.

Pursuant to adjournment the Seventh Annual meeting of the Military Tract Medical Association convened in Masonic Hall at 10 o'clock. In the absence of the President, Dr. E. L. Phillips, of Galesburg, was called to the Chair. Drs. Reese, McClelland and Klingburg, as board of censors, reported the names of Drs. Bunce, Heller, Sapp, and D. T. Brown for membership. The association received them by unanimous vote. The regular order of business was left until the afternoon session.

Dr. W. L. Cuthbert then offered a series of resolutions concerning abortion, which, after some discussion, were referred to a committee consisting of Drs. Cuthbert, Reese, Hurd, Bacon and Bunce. Upon the retirement of the committee the association adjourned until two o'clock.

**AFTERNOON.**—The association re-assembled with Dr. Phillips in the Chair. On motion, the association proceeded to the election of officers, with the following result: Dr. John W. Hensley, of Gates City, President; Dr. M. A. McClelland, of Knoxville, Vice President; Dr. Herbert Judd, of Galesburg, Secretary and Treasurer. Dr. Hensley returned thanks on taking the Chair in a brief address, promising to discharge the duties to the best of his ability. He then called for the reports of the committees, when Dr. Reese, Chairman of the Committee to whom Dr. Cuthbert's resolutions were referred, made a favorable report. On motion, the report was received and the Committee discharged. These resolutions are of the greatest interest, and are as follows:

**WHEREAS,** The procuring of criminal abortion is becoming more prevalent, and in our

vicinity as elsewhere, unscrupulous specimens of human depravity—abortionists—are plying their murderous traffic; and that from the members of the medical profession the public expect an expression of their opinion in regard to this evil; therefore,

*Resolved*, That we recognize the procuring of miscarriage or abortion in any stage of pregnancy as criminal in the highest degree, unless absolutely demanded to save human life, and then only by the advice of two or more regular physicians.

*Resolved*, That we, as physicians, pledge all our efforts to assist and sustain our legislators and executives in all measures that tend to the suppression and prevention of this heinous crime, with its fearful consequences.

*Resolved*, That we are bound by a sense of duty as physicians and citizens to condemn the abortionist and his abettors, deeming them unworthy of our association and respect, and to use all reasonable means to expose their murderous schemes and bring them to punishment.

*Resolved*, That while we denounce their murderous traffic we will strive to inform the public of its train of consequences; for the violation of physical and moral laws is certain to meet its just penalty, prolonged and intractable diseases of body and mind and often death.

*Resolved*, That a copy of this preamble and resolutions be forwarded to each paper published within our bounds, the Chicago MEDICAL EXAMINER and *Chicago Medical Journal* inclusive, with a request for gratuitous publication, that the position of the Military Tract Medical Association may be known on this matter of vital importance to the public.

From the standing committees, Practice of Medicine, Surgery, Materia Medica, Obstetrics, Diseases of Women and Children, many interesting and valuable reports were given, both written and oral; the discussions were more free and universal than at any previous meeting.

Under miscellaneous business, Drs. Reese, Judd, Phillips, McClelland, and Webster, were appointed as committee to revise the Constitution and By-Laws. Drs. Phillips, Morse and Hurd were appointed a committee to report at the next meeting upon the death of Dr. John W. Spalding.

The following are the standing committees to report at the next meeting, to be held in January: *Censors*—M. Reese, M. A. McCle-

land, A. Klingburg. *Essayists*—W. W. L. Cuthbert, J. R. Webster. *Surgery*—M. A. McClelland, J. M. Morse, Wm. Hamilton. *Practice of Medicine*—E. L. Phillips, B. F. Brown, J. C. Secord. *Materia Medica*—Henry B. Upton, D. W. C. Bacon, Chas. Bunce. *Obstetrics and Diseases of Women and Children*—W. H. Heller, D. T. Brown, T. J. Maxwell. *Ophthalmology*—L. S. Lambert.

Upon motion, the association adjourned to meet in Galesburg on the second Tuesday in January next.

HERBERT JUDD, *Sec'y.*

STATE MEDICAL SOCIETY OF WEST VIRGINIA.

This Society held its annual meeting at Wheeling, June 6th and 7th, 1872. The attendance appears to have been good, the papers and discussions interesting, and the social intercourse pleasant and profitable.

The following are the Officers and Committees for the present year: *President*—Dr. R. H. Cummins. *Vice-Presidents*—Drs. Roemer, Davis, Moore. *Secretary*—Dr. Wm. Dent. *Treasurer*—J. E. Hupp. *Committee on Publication*—Drs. Bates, Hupp, Hildreth and Wm. Dent. *Committee on Necrology*—Drs. Haslett, Berkile and Roemer. *Committee on New Remedies, Medical Division*—Dr. Jepson; *Surgical Division*—Dr. Pipes. *Essayists*—Drs. Davis and Berry. *Committee on Medical Botany*—First District, Drs. Hildreth and Wiesel; Second, Drs. Bronson and Brownfield; Third, Drs. Roemer and Harris. *Committee of Arrangements*—Dr. Davis and the members of the Society in Parkersburg. *Committee on Climatology and Epidemics*—Drs. Roemer, Harris, Hildreth, Wilson and Ramsey.

The next meeting of the Society is to be held in Parkersburg, the first Wednesday in June, 1873.

DEATH OF A FRENCH ANATOMIST AND PHYSIOLOGIST.—Dr. Liegeois, Vice-Professor at the Paris Faculty, and author of well-known works on anatomy and physiology, recently died, after a brief but painful illness, in the city of Paris.

**Gleanings from Our Exchanges.****NOTES ON CANTHARIDES AND A BLISTERING LIQUID.**

BY EDWARD R. SQUIBB, M.D.

In a recent revision of the Army Medical Supply Table, the writer was consulted upon the adoption for army use of some of the various blistering-papers, tissues, or plasters, which appear to be so convenient in use, and thus so well adapted to a military organization. Upon careful inquiry, however, it appeared that all these tissues were liable to deterioration under unknown conditions; and that any such want of permanency overbalanced the advantages, particularly for army outposts, where supplies could not be frequently renewed. The tissues were therefore abandoned for the present; but it was thought by the writer that a blistering liquid might be made by taking advantage of the more recent researches upon cantharides, which would give better promise of permanence. Blisters have, in the condition of the patient, and of the surface to which they are applied, and in the degree of skill with which they are applied, so many elements of uncertainty, that it is highly important that the substance used for blistering should be in itself as free as possible from uncertainty. Under different conditions of the patient, a thoroughly active blistering substance may vesicate in four hours, or in seven or eight hours, or may not vesicate at all; and in case of delay or failure, the time is always lost, while it is generally impossible to know whether the cause of delay or failure be in the patient or in the blistering substance.

The general drift of recent observations seems to point to two principal causes of uncertainty in blistering agents. First, the almost absolute insolubility of the active principles of cantharides in ordinary menstrua; and second, the liability of these active principles to become inert, or to fly off in some volatile combination.

The change which takes place in cantharides and its preparations seems somewhat analogous to that which occurs in ergot, and it therefore seems not unlikely that it may be controlled in the same way as that so successfully applied by Prof. Procter in the officinal fluid extract of ergot; that is, by fixing the active principles in new and more permanent combinations.

The important investigation of cantharides in 1852 by Prof. Procter, has served as a basis for many able researches, and notably

those of Fumouze, and of Massing and Drägendorff, in 1867, and Delpech in 1870, so that now the older labors of Robiquet and others are rather matters of history than guides in practical application.

In an attempt to utilize still further the labors of these recent writers on cantharides, it was determined to make a solution of cantharadin in some convenient menstruum better than collodion, and to make this so strong as to be as nearly certain as possible. A hundred and twenty pounds of good cantharides was freshly powdered, and the powder carefully assayed yielded the full proportion of 0.466 per cent. of cantharadin. Twenty pounds of this powder very thoroughly exhausted by sixty-eight pounds of chloroform by percolation, and the chloroform recovered by distillation, left a black, oily residue, weighing twenty-eight ounces, avoirdupois. This, while warm, treated repeatedly and copiously with bisulphate of carbon to remove the oily matters, left a residue of very light-colored cantharadin, which in proportionate quantity came but little short of the assay. The bisulphate of carbon distilled off should have left the oily and waxy matters free from cantharadin, but upon trial on the writer's arm, this oil proved to vesicate most promptly and actively. Another portion of this oil, separated from the cantharides in another way, proved equally active. Supposing this activity to be due to its still holding some cantharadin in solution, the oil was repeatedly heated and washed with a solution of potassa so dilute as not to saponify the oil, yet strong enough to render the cantharadin soluble, and to wash it out. Still the oil blistered as actively as before, and the writer was thus forced to the conclusion either that this oil held a portion of the cantharadin too obstinately for easy practical separation, or that the oil itself was vesicant, and therefore that the cantharadin was not, as heretofore believed, the only active or vesicating principle of cantharides. This latter explanation is that which the writer is now inclined to accept in preference to the former.

Rejecting the oil and its vesicating properties, however, it was next thought to get the cantharadin into a definite solution which could be made uniform and thus far trustworthy. A variety of menstrua were tried, including most of those which have been commonly suggested, and glycerin and chloroform and their mixtures in addition. None of these proved to be sufficient solvents, or properly applicable, thus realizing the observations of Prof. Procter as to the peculiar intractability and unmanageable nature of this

substance when separated. Many of the cold solutions were vesicant, but all appear to be sluggishly so, and much less active than the oil. These trials all seemed to strengthen the conclusions of Massing and Dragendorff that cantharidin is an anhydride, which in combination fixes two equivalents of water, and then plays the part of an acid to alkaline bases. The salts thus formed are far more soluble than cantharidin, and are soluble in other menstrua, but these solutions are still very dilute when saturated, and appear feeble and sluggish in vesicating effect when compared with the activity of the oil. All this inclined the writer, after much labor, to go back to the beginning, and by the light and general drift of these trials, seek for some definite liquid representative of the crude drug like a fluid extract, wherein the active principles, as in fluid extract of ergot, may be rendered more fixed and permanent by new combination. After preliminary trials of various menstrua for exhausting the powdered cantharides, the officinal diluted alcohol, containing one-sixteenth of its volume of officinal liquor potasse, seemed to succeed well. But when the liquid obtained and the residue after exhaustion were tried, the first was found rather sluggish in action, and loaded with an unnecessary amount of inert extractive matter, whilst the residue produced some irritation of the skin, and persistent itching after eighteen hours' application. After standing three weeks, the liquid was covered with a film of wax and fatty matter, and had become turbid. All this was accepted as evidence that the menstruum did not contain sufficient potassa and alcohol, and a new menstruum was made containing one-eighth of its volume of liquor potasse, one-eighth water, and three-fourths stronger alcohol. This menstruum applied to the powder by repercolation yielded a percolate, which, when in the proportion of a minim for each grain of powder, was very active in producing vesication. Even when diluted to one-half this strength, its action was energetic and prompt, producing a blister in less than six hours. This percolate contained no free potassa, and the alcohol appeared to be in sufficient proportion to hold all the oil in solution. On standing exposed for some days it becomes turbid, and a film of waxy matter formed on the surface. This turbidity and waxy matter did not disappear on the addition of alcohol unless the liquid was heated. The percolate was miscible with water and with alcohol in all proportions, but with turbidity from the separation of waxy matter, with perceptible separation of oil. This percolate was ac-

cepted as the blistering liquid sought after. It is really a fluid extract of cantharides in the normal proportion of minim for grain, and as an example of how fluid extracts may be made by weight, and without measures, the formula by which it is practically made will now be given.

FLUID EXTRACT OF CANTHARIDES OR  
BLISTERING LIQUID.

Take of—

Cantharides, in fine powder, 16 troy ounces.  
Solution of Potassa, } of each a sufficient  
Stronger Alcohol, } quantity.  
Water,

Make a menstruum consisting of two troy ounces and thirty-two grains ( $= 2 f \frac{5}{6}$ ) of solution of potassa, and four troy ounces and three hundred and twenty grains ( $= 6 f \frac{5}{6}$ ) of stronger alcohol, to moisten the powder with.

Make another menstruum with which to percolate, consisting of  $6 \frac{1}{2}$  troy ounces of solution of potassa, 6 troy ounces of water, and 28 troy ounces of stronger alcohol. Divide the powdered cantharides into four equal parts, and moisten each part as it is wanted for percolation with one-fourth of the first menstruum. Then percolate the first part to exhaustion with the second menstruum. Reserve the first troy ounce of the percolate from this first part, and receive the remainder of the percolate in separate portions of about two or three troy ounces each. Repercolate the second part of the moistened powder with the percolate from the first part, excepting the reserved portion, and follow the percolate from the first part with about two troy ounces of new menstruum. Reserve three troy ounces of the first of the percolate from this second part, and separate the remainder of the percolate in fractions as before. Repercolate the third part of the moistened powder with the percolate from the second part, excepting the reserved portion, and follow the percolate with fresh menstruum as before. Reserve five troy ounces of the first of the percolate from this third part, and separate the remainder of the percolate in fractions as before. Repercolate the fourth and last part of the moistened powder with the percolate from the third part, excepting the reserved portion, and follow the weak percolate with fresh menstruum to exhaustion as before. Reserve five troy ounces of the first of the percolate from this fourth part, and separate the remainder of the percolate in fractions as before, to be carried on to a future process. Add the reserved portions of percolate together, and mix them as the finished fluid

extract. When a new process is to be undertaken, four troy ounces of the powder is to be treated in exactly the same way as each of the above parts, and three and a half troy ounces of the first part of the percolate is to be reserved as finished fluid extract, and the remainder of the percolate is to be carried on to a future operation as before.

A pint of the first menstruum, at  $25^{\circ}$  C. =  $77^{\circ}$  F., weighs 6520 grains, and a pint of the second menstruum, at the same temperature, weighs 6482 grains. A pint of the finished fluid extract, at the same temperature, weighs 6850 grains, or 14 troy ounces and 130 grains. The normal difference for this lot of powdered cantharides is therefore  $6850 - 6520 = 330$  grains.

The officinal liquor potasse always contains lime and silica, which are precipitated upon admixture with alcohol, and these weights will vary from these figures if this precipitate be left in the mixture. As the officinal liquor potasse contains 5.8 per cent. of hydrate of potassa, and as each fourteen troy ounces of the fluid extract contains about two troy ounces and thirty-two grains of liquor potasse, it follows that the total quantity of hydrate of potassa represented in the fourteen troy ounces is about 57.5 grains or 0.85 per cent. This is, however, entirely saturated by the cantharidin and by the oil, and is present in the fluid extract as cantharidate of potassa and as a soap, both being held in perfect solution by the alcoholic menstruum, the turbidity on standing and by dilution consisting of inert matter in inconsiderable quantity. The only thing which appears undetermined in the preparation is its permanence. All the published researches on this point and all the analogies that are available, however, are in favor of its permanency, and as it proved very prompt and effective when reduced one-half in strength, it has a very good margin to secure its certainty.

It is therefore believed to be an excellent fluid extract of cantharides, and available for all therapeutic uses of the drug, internal as well as external, while it is both convenient and economical. It is, of course, an active poison, and should therefore bear a red label, and be dispensed with due care. As it can only be needed in small quantities, it should be put up in one and four ounce bottles.

For internal use it may be diluted to any desired extent, and may be given in any simple vehicle.

As a rubefacient, or mild and continuous counter-irritant, it may be added in very

definite proportion to plasters, cerates, ointments, liniments, &c., to obtain any desired degree of effect.

As a vesicant, it is perhaps best applied by means of thin bibulous paper, such as common filtering paper or newspaper, covered by oiled silk or adhesive plaster. One drachm of the fluid extract sufficiently moistens one square inch of such paper, and this is a good proportion in use,—a fluid drachm for an eight inch blister for example. The paper should be cut of the shape and size required, and a piece of oiled silk or oiled muslin, or a piece of common adhesive plaster, of the same shape but larger size, should be cut as a covering. The paper is then folded upon itself several times, and while lying on the middle of the oiled silk the fluid extract is dropped upon it until the paper is just thoroughly moistened or saturated, so that none of the liquid can drain out and spread over more of the surface than is desired. If it be accidentally or incautiously wetted too much, a few minutes' exposure will remedy this, by the evaporation of the alcohol. Paper thus moistened may be entirely dried, and be preserved for use in the dry state, to be moistened with water as required for use, but although likely to be more permanent, as shown by M. Delpech, than any of the common blistering tissues, its permanency has not yet been ascertained. It is therefore, for the present, considered better and safer to keep the blistering substance in the liquid form, and to moisten the paper with the liquid as it is required for use. This paper, thus moistened, is simply applied to the skin and covered with the oiled silk. In dispensing a blister of this kind, it is simply necessary to wrap the folded moistened paper up in the oiled silk, and then the whole in paper, with written directions for the simple mode of application. The skin should be cleansed from secretions before the paper is applied, but this is less necessary with this than with the ordinary forms of cantharides, because the active principles are here in a far more soluble condition. Of course, some means must generally be taken by bandage or by light compression to keep the paper in contact with the skin. A gentle pressure over the oiled silk for a few minutes, until it becomes warm and soft, will cause its margin to adhere to the surface around the paper, and usually this will be all that is needed. Narrow strips of adhesive plaster or isinglass plaster or a bandage may occasionally be required. Three to five hours' contact is generally sufficient to produce full vesication, but the cuticle will not generally be raised

into a blister for six or seven hours, whether the paper be left in contact or not. The common practice of removing the blister at the end of five hours and substituting a water-dressing is excellent practice. If the blister be very painful and irritating to a patient, the water may be made with a half per cent. solution of carbolic acid, as in treating a superficial burn, instead of simple water, when the pain and soreness will promptly subside. This dressing, however, will lessen the counter-irritant effect of the blister somewhat, and to that extent will interfere with its object.

A collateral advantage of this fluid extract may be expected from the circumstance that the active principles are soluble in water, and may be easily washed from the surface by simple sponging after the blister is removed, thus lessening the absorption and the liability to strangury. It is also easily washed off the hands and other parts to which it becomes accidentally applied, and from the surface to which it is purposely applied, at any stage of its action. This should give it a great advantage over the cantharidal collodion in many of its applications, and should nicely adapt it to use about the os uteri. It should also be far more certain than the cantharidal collodion.

The writer regards this preparation as a striking example of the conservative ground which he has taken for some years past, that the search for, and the isolation of so-called active principles of drugs in therapeutics and pharmacy, may be easily, if it be not generally, carried too far. He believes that he has proved by the labor which is epitomized in this paper, that a well-constructed fluid extract of cantharides is in every practical sense better than any preparation of cantharidin, or of cantharidate of potassa, and is all-sufficient for every known use of the drug which it represents.

Therefore, as good fluid extract of ergot is far better for practical use than any of the so-called active principles of ergot; and as fluid extracts of aconite root, belladonna root, conium seed, and nux vomica, are better for therapeutic uses than aconitia, atropia, conia, and strychnia, so is a fluid extract of cantharides better than the drug itself, and better than its active principles. At least such is the conviction of this writer.

TREATMENT OF VENEREAL ULCERS BY DR. HEMARD.—In the *Med. Chirurg. Centralbl.*, 1871, Dr. Hemard asserts that for the last twenty years he has obtained the cure of soft and hard sores by simply irrigating the parts

with cold water. A vessel of cold water is fixed to the walls of the room, at such a height a tube attains a certain force of projection. The patient has no more to do but to wash his ulcers every three or four hours under this stream; in a few days the ulcer becomes clean and quickly heals. All other treatment is superfluous. In ulcers of the prepuce, which are out of sight, after irrigating, a little starch flour is introduced. When the superficies of the ulcer has lost its characteristic aspect, a stratum of collodion is painted on it, and it soon heals.—*Id.*

#### NOTE ON PAREIRA.

BY EDWARD R. SQUIBB, M.D.

Pareira Brava is a drug which has withstood the mutations of therapeutics and commerce for nearly two hundred years, and it is a singular and significant fact, in view of its commercial history, that it has sustained a sound reputation with many critical observers.

It appears to have been introduced to European practice from Portugal, but its sources were Mexico, tropical South America, and the West Indies. Under a name so indefinite as "wild vine," or "bastard vine,"—the translation of the name Pareira Brava,—it is hardly possible that the markets should have always been supplied from the same plant, even after its botanical source was determined, and hence the varying descriptions of different authorities may be accounted for. The writer has been familiar with it, both in its use and in its market character, for more than twenty-five years, and for the last half of this period supposed he knew the substance with some degree of accuracy, as its appearance was more uniform than that of most drugs. It, however, never had more than a very general agreement with any of the descriptions given of it; and the almost universal testimony of those physicians who knew it best was, that although very efficient in the treatment of chronic diseases of the mucous membranes of the urinary passages, it was only useful when given in doses very much larger than those prescribed by the books.

It has so happened, that in the New York market the trade in this drug has been largely, though not exclusively, confined to one drug house, and its appearance, as met with here, is identical with occasional samples seen from other cities. Some ten years ago, the annual sales here did not exceed three or four hundred pounds, and the price was fifteen to twenty cents. A Portuguese merchant, stimulated by this high price, im-

ported a lot of some ten thousand pounds, and unable to sell it except in small lots at the expected prices, stored it for a year or two. This was found to be expensive management of so bulky an article, and the lot was finally sold at eight cents, and supplied the market for years. Another lot of about half as much shared the same fate, and fell into the same hands. The fate of these two lots and the glut of the market, seems to have stopped importation entirely, and by 1871, when the annual sales had reached three to four thousand pounds, the supply became exhausted. In resorting to foreign markets it was found scarce, and to be had only in small lots, and these, on arriving here, were held at seventy-five cents to a dollar a pound. In looking critically through one of these small lots as a purchaser, the writer was surprised to find nearly one-half of it so entirely different from any hitherto seen, that he rejected it, and at once pronounced it a fraudulent adulteration or substitution, made in the interest of the scarcity and high price, and carefully selected out for purchase that only which he had seen before. Some specimens of this supposed fraudulent Pareira were, however, taken for examination, and were found to agree well with some of the older descriptions. A plate given by Pomet in his History of Drugs, published in 1737, and a close examination of the structure, &c., convinced the writer that this was the true Pareira root, and that what he had heretofore seen was the stem.

In a critical review of the descriptions of Wood and Bache, and Pereira, these descriptions were found to apply to both, as nearly as such descriptions generally do to foreign drugs, but that they applied much better to the ligneous woody stem, which is comparatively insipid and inert. The root is very much darker, almost black externally, and both the annular and vertical wrinkles are very much larger and more prominent. It occurs in shorter sections than the stem, and gnarled pieces are found eight inches to a foot in diameter. The texture is far less compact than that of the stem, while the beautiful arrangement of the consecutive rings seen in a cross section, which requires a glass in the compact stem, is well seen with the naked eye in the root. The sweetish and afterward bitter taste of the woody stem is very feeble, and even when in the finest powder, it yields very little extract to any menstruum. The taste of the root is, however, very much stronger, and yields at least twice as much extractive matter to the menstrua. The specimens herewith presented illustrate the difference between the root and stem much

better than any description, and will render further explanation unnecessary.

It thus appears that, for some twelve or fifteen years past, this market has been supplied with the comparatively inert stem, instead of the root of Pareira; and that the ideas of at least one careful purchaser had become so fixed upon the intractable woody stems, that when the roots did appear, they were very nearly rejected as a fraudulent substitution. The importations of this year thus far have come from the European markets in small lots, and have been a mixture of root and stem, but less of the root than stem, and the chief object of this note is to attract attention to the drug, and create such a demand for the proper root portion, that after the present scarcity is over, and the market comes to be again supplied direct, the stem may be rejected.

There is no doubt whatever as to the peculiar efficacy and utility of this drug within its legitimate sphere in therapeutics, and the wonder is that it has been able to sustain its well-tried and time-honored reputation upon the feeble medicinal properties of the stem.

• • •

ENURESIS.—Dr. Woodman, in a clinical lecture at the London Hospital, published in the *Medical Press*, recommends the following method of investigating cases:—

1st.—Inquire carefully into the duration and frequency of the incontinence, and into the previous history of the child and the family.

2d.—Carefully note the diathesis, and general bodily condition of the patient.

3d.—Examine the *urine* by test papers, by other tests, and by the microscope if necessary.

4th.—Make a careful examination of your patient, including the anus and rectum amongst the pudenda, and, if need be, exploring the bladder also. I need not enjoin upon you all possible delicacy and tenderness in these examinations. You must explain the necessity to the parents—and you will often astonish them by evidences of neglect of cleanliness, or of the existence of sores of which they were ignorant.

5th and lastly.—Suit your treatment to the case; removing or soothing all causes of irritation, and at the same time endeavoring to improve the general health, for it is quite true that delicate and tubercular children, or those weakened by long and severe illness, such as the exanthemata, suffer most. Above all things *do not countenance corporal punishment for this bodily infirmity*. It is as cruel as it is usually useless; and I am in the habit

of saying that the parents or nurses ought to be beaten, and not the little patients.

Dr. W. mentions the following *auxiliaries* to treatment, useful in a great number of cases:

There is first the warm-bath; a sitting-bath is all that is generally needed. It should not be too warm, indeed 90°, or at all events 98°, is quite warm enough. Next, I have found it of great service to forbid the little patients to drink anything after their tea (say at five or six o'clock), unless thirst be extremely pressing.

On the importance of *waking* them up once, twice, or more in the night to make water, I need not dwell. This is not so cruel as it seems; the child is soon asleep again in most cases. It is also well not to let them lie on the back. The trigone of the bladder is the most sensitive part, and, besides, it is possible the posterior regions of the spinal cord get unduly congested. A reel (such as used for cotton) fixed in the middle of the back sometimes prevents this, and the child may be turned over on the side. For local sores, the glycerine of tannin, aided by cleanliness, is very valuable. I wish it did not stain the sheets so much. As tonics, mineral acids with bark, and the perchloride of iron, are the best I know; and, if sweetened, children seldom refuse to take them, which is a great advantage.

As a sedative, belladonna is, perhaps, often better than opium. You may give from one-eighth to one-fourth of a grain of the extract even to very young children, three or four times a day. This is the most successful empirical remedy I know, and obscure cases always deserve a trial, increasing the dose within the limits of safety. Should the urine, however, be saccharine, ammoniacal, or phosphatic, opium must have the preference. For ascarides you will use local injections. Salt and water enemata are as good as anything else. In epileptic cases, cod-liver oil (if the fits are tubercular in origin) will perhaps deserve to be considered as more than an auxiliary.—*Id.*

OF DRAINS, SMELLS, AND FEVERS.—The free ventilation that has recently been given to the unsavory subject of sewers and drains, in connection with outbreaks of typhoid fever, will, it is to be hoped, lead to practical ventilation of the sewers themselves, so that the noxious gases pent therein, and panting for escape, will be accommodated in this respect in a way as little prejudicial as possible to the health of the community. Time was when main drainage was unknown; houses

were drained into cess-pits, and from time to time a functionary known as a "nightman," visited the premises in the dead of night, and bucketed out all the collected filth into his cart, to be carried away and used as manure. It did not appear that these nightmen were specially liable to fever or other disease in consequence of their avocation; indeed, the belief among some was that the occupation was rather healthy than otherwise, perhaps in consequence of the stimulating ammoniacal odors so freely inhaled.

However, we have now changed all this; at least, in most large towns; and houses are put in connection with an almost endless vista of long drains, which, while rather carriers than reservoirs of sewerage matter, are always full of most poisonous gas.

How many outbreaks of typhoid fever, especially in windy watering-places, have been called by the current of wind up these sewers, forcing the gases into houses, it is needless to say. One well-known instance we can easily call to mind, and the effect, at the suggestion of a well-known engineer, of introducing ventilators protected by charcoal, was a prompt means of thoroughly arresting further outbreak of typhoid in the place.

A consideration of these matters of experience will show that flushing the sewers of any house or district, at a moderate elevation above the trunk sewer, must be most dangerous, for the reason that, as the torrent of water rushes along, it displaces the gases that are collected in the sewer, and these, rising upwards, may be driven into a dwelling-house with all the force that is exercised by the pressure of the current of water.

It is, I presume, to guard against this very evil that Mr. Rawlinson has suggested the simple but most rational expedient of having the lid of every water-closet perforated with a hole just over the handle, so that this may be pulled up while the lid is closed, and so the stinking gases, displaced by the water-flow, cannot enter the house.

It would be out of place here to enter into the arrangements by which house-drains can be safely flushed. The principle to be kept in view is that the gases rise up as the water goes down; and such arrangements in the way of ventilation must be made as will secure for these gases a free outlet into the open air. The old-fashioned cess-pool of stagnant filth may have its objections; but practice tends to prove that sewerage in active motion may be more dangerous to the public health than the same matter stagnant and at rest.—*The Doctor.*

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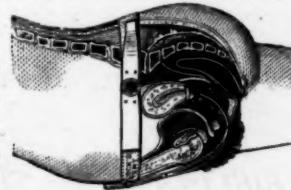
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